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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,557	07/30/2003	Christos J Georgiou	BUR920030040US1	1556

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EXAMINER	
JAIN, RAJ K	

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
01/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/604,557	GEORGIOU ET AL.	
	Examiner	Art Unit	
	Raj K. Jain	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8-14,20 and 21* is/are rejected.

7)☒ Claim(s) *5-7 and 15-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 8-14, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al (US 5,337,313) in view of Trippe (US 2003/0108066 A1).

Regarding claim(s) 1, Buchholz discloses a method of reordering data packets received out of order (abstract), the method comprising the steps of:

reading context information from a received data packet to determine whether the received packet is in a given sequence (Fig. 7; col 5 lines 62-65, sequence number field 730 identifies the packet numbering scheme maintained in the protocol field (Fig. 6) 670);

comparing said context information of the received data packet to an expected sequence count for the given sequence (col 3 lines 40-48), and storing the received packet with said context information in a memory as a linked list when there is a match (col 3 lines 49-53), all received packets in the linked list being in order (col 7 lines 59-62).

Buchholz fails to create a new linked list each time a new data packet is received out-of-order and linking in order all subsequent packets received in order to the new

linked list and constructing a reorder table of addresses of the first packet for all linked lists.

Trippe discloses creating a new linked list each time a new data packet is received out-of-order and linking in order all subsequent packets received in order to the new linked list and constructing a reorder table of addresses of the first packet for all linked lists (Paras 13, 19, 34 and 35). Packet reordering and updating of linked lists allows for correct sequencing of packets in a chain and freeing up the context from addressable memory sources as appropriate.

Regarding claim(s) 8, 9, 20 and 21, Buchholz discloses a method for ordering packets (abstract), the method comprising the steps of:

detecting at least one of an in-sequence and an out-of-sequence packet chain in one or more packet flows (col 3 lines 31-35); storing the detected at least one of the in-sequence and the out-of-sequence packet chain in a memory (Col 3 lines 35-37); providing a sequence number with each of the stored in-sequence and the out- of-sequence packet chain (col 3 lines 37-41); associating the sequence number with an address in the memory of at least one of the stored in-sequence and the out-of-sequence packet chain (col 3 lines 40-45); ordering the at least one of the in-sequence and the out-of-sequence packet chain from the memory based on the associated sequence number to provide one or more packet flows all in-sequence (col 3 lines 46-50).

Buchholz fails to create a new linked list each time a new data packet is received out-of-order and linking in order all subsequent packets received in order to the new linked list .

Trippe discloses creating a new linked list each time a new data packet is received out-of-order and linking in order all subsequent packets received in order to the new linked list (Paras 13, 19, 34 and 35). Packet reordering and updating of linked lists allows for correct sequencing of packets in a chain and freeing up the context from addressable memory sources as appropriate.

Regarding claim(s) 2, Buchholz discloses incrementing the expected sequence count (col 8 lines 7-30).

Regarding claim(s) 3, Buchholz discloses comparing context information includes comparing a flow type indicator (col 6 lines 32-35).

Regarding claim(s) 4, 13 and 14, Buchholz discloses constructing a transmission table of one or more entries, each entry including at least one of a flow indicator, a sequence number and a memory address associated any of the linked lists, the flow indicator being associated with the reorder table (Figs. 9, 10 and 12; col 6 lines 48-57).

Regarding claim(s) 10, Buchholz discloses linking one or more received packets into a linked list associated with the sequence number of each of the at least one in-sequence and the out-of-sequence packet chain (col 7 lines 59-62).

Regarding claim(s) 11, Buchholz discloses sequence number is a list of sequence numbers, each associated with at least one of the in-sequence and the out-of-sequence packet chain (abstract; Figs. 6 & 7, ref. 640 & 670; Col 5 lines 62-65).

Regarding claim(s) 12, Buchholz discloses determining if a context switch is necessary by checking a packet context information in a received packet; and switching context when the packet context information has changed for a next received packet, the packet context information including flow context information (col 2 lines 10-21).

Allowable Subject Matter

Claims 5-7 and 15-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj K. Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raj K. Jain
/Raj K. Jain/
Art Unit 2616

December 30, 2007